



Avian Influenza

What is avian influenza?

Influenza (flu) A is a family of viruses that affects birds and other animals. Avian influenza or “bird flu” refers to this whole family of viruses. They are divided into subtypes based on two proteins on the surface of the virus: the hemagglutinin (H) and the neuraminidase (N) components. The viruses are coded by strain, and there are 15 different hemagglutinin subtypes and 9 neuraminidase subtypes identified so far. Avian influenza can cause widespread illness and death among birds.

Does avian influenza affect any animals besides birds?

Influenza viruses that infect birds are called “avian influenza viruses.” Birds are an especially important species because all known subtypes of influenza A viruses circulate among wild birds, which are considered the natural hosts for influenza A viruses. However, certain strains can affect chickens, turkeys, ducks, geese, pigs, horses, and humans. While all A subtypes can be found in birds, only three H subtypes (H1, H2, and H3) and two N subtypes (N1 and N2) are known to have circulated widely in humans. H7N7 and H5N1 have occasionally infected humans also. Influenza B strains affect only humans.

What are the effects of the disease in birds?

The disease in birds has two forms. The first causes mild illness, sometimes expressed only as ruffled feathers or reduced egg production. The second form, known as “highly pathogenic avian influenza” was first recognized in Italy in 1878. It is extremely contagious in birds and rapidly fatal, with a mortality approaching 100%. Birds can die on the same day that symptoms appear. Wild birds usually have few or no symptoms.

How is the disease spread?

Certain water birds act as hosts of influenza viruses by

carrying the virus in their intestines and shedding it. Infected birds shed virus in saliva, nasal secretions, and feces. Avian influenza is spread among susceptible birds when they have contact with contaminated nasal, respiratory, and fecal material from infected birds. The disease is passed to humans the same way.

What are the symptoms of avian influenza in humans?

The reported symptoms of avian influenza in humans have ranged from typical influenza-like symptoms (e.g., fever, cough, sore throat, and muscle aches) to eye infections, pneumonia, acute respiratory distress, viral pneumonia, and other severe and life-threatening complications.

When did avian influenza start infecting humans?

Confirmed cases of avian influenza (H5N1) were first diagnosed in 1997 in Hong Kong. During this outbreak 18 people were hospitalized and 6 of them died. There have been several outbreaks in Asia and the Netherlands since then.

Is there a test for avian influenza?

The Centers for Disease Control and Prevention (CDC) has the capability to test for many avian influenza viruses.

Is there any treatment or cure for avian influenza in humans?

Some studies have shown that antiviral prescription medications approved for human influenza strains may have some effect on avian influenza.

What is a flu pandemic and how likely is it?

An influenza pandemic is a global outbreak of influenza that occurs when a new influenza virus emerges, spreads, and causes widespread disease. All influenza viruses have the

potential to change. It is possible that an avian influenza virus could change so that it could infect humans and spread easily from person to person. Because these viruses do not commonly infect humans, there is little or no immune protection against them in the human population. If an avian virus were able to infect people and spread easily among humans, an influenza pandemic could begin. Most scientists think it is likely to happen some day but no one can say when.

What can be done to stop the spread of this illness when it occurs?

All infected birds should be killed. People who work with infected chickens, pigs, and fowl should be vaccinated against human influenza. The transportation of chickens, turkeys, and pigs and their export should be stopped in the affected regions. Disinfectant also kills the virus and should be used in contaminated areas such as chicken pens.

Is it safe to eat chicken?

Yes. It is difficult to get influenza from an animal and cooking kills the virus.

What should I be doing to protect myself?

Several things people can do as precautionary measures are:

- Listen to the news and stay informed if there is an outbreak
- Go about your life as usual
- If you feel sick, consult your health care provider
- Practice good hygiene, especially hand washing

For specific concerns or questions about avian influenza, call the New Hampshire Department of Health and Human Services, Bureau of Communicable Disease Control at 603-271-4496 or 800-852-3345 x4496. For further information, refer to the Centers for Disease Control and Prevention website at www.cdc.gov, the World Health Organization website at www.who.int, or the New Hampshire Department of Health and Human Services website at www.dhhs.state.nh.us/dhhs/bcdcs/avian-flu.htm